

THE IMPACT OF HEALTH MISINFORMATION ON BRAZILIAN SOCIAL MEDIA AND ITS EFFECTS ON TREATMENT ADHERENCE

O IMPACTO DA DESINFORMAÇÃO EM SAÚDE NAS REDES SOCIAIS BRASILEIRAS E SEUS EFEITOS NA ADESÃO A TRATAMENTOS

EL IMPACTO DE LA DESINFORMACIÓN EN SALUD EN LAS REDES SOCIALES BRASILEÑAS Y SUS EFECTOS EN LA ADHERENCIA A LOS TRATAMIENTOS



<https://doi.org/10.56238/sevened2026.009-015>

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ABSTRACT

Health misinformation on Brazilian social media constitutes a threat to public health, compromising treatment adherence and trust in scientific institutions. The proliferation of fake news about vaccines, medications, and treatments generates serious consequences, including reduced vaccination coverage and the abandonment of therapies proven to be effective. This study analyzes the impact of health misinformation on Brazilian social media on treatment adherence, identifying mechanisms of dissemination and coping strategies. The methodology is characterized as an exploratory bibliographic review with a qualitative approach, grounded in the critical analysis of scientific publications from 2020 to 2025. The results indicate that misinformation is concentrated on topics related to vaccines and treatments for COVID-19, with documented effects on vaccine hesitancy and treatment abandonment. Vulnerable populations, including older adults and individuals with low levels of schooling, show greater susceptibility to misinformation content. It is concluded that addressing misinformation requires strengthening health literacy, improving physician-patient communication, and holding digital platforms accountable.

Keywords: Health Misinformation. Social Media. Treatment Adherence. Health Literacy.

RESUMO

A desinformação em saúde nas redes sociais brasileiras constitui ameaça à saúde pública que compromete a adesão a tratamentos e a confiança nas instituições científicas. A proliferação de fake news sobre vacinas, medicamentos e tratamentos gera consequências

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graves, incluindo redução de coberturas vacinais e abandono de terapias comprovadamente eficazes. Este estudo analisa o impacto da desinformação em saúde nas redes sociais brasileiras sobre a adesão a tratamentos, identificando mecanismos de disseminação e estratégias de enfrentamento. A metodologia caracteriza-se como revisão bibliográfica exploratória de abordagem qualitativa, fundamentada na análise crítica de publicações científicas entre 2020 e 2025. Os resultados evidenciam que a desinformação concentra-se em temas relacionados a vacinas e tratamentos para COVID-19, com efeitos documentados sobre hesitação vacinal e abandono de tratamentos. Populações vulneráveis, incluindo pessoas idosas e pessoas com baixa escolaridade, apresentam maior suscetibilidade a conteúdos desinformativos. Conclui-se que o enfrentamento à desinformação requer fortalecimento da literacia em saúde, melhoria da comunicação médico-paciente e responsabilização de plataformas digitais.

Palavras-chave: Desinformação em Saúde. Redes Sociais. Adesão a Tratamentos. Literacia em Saúde.

RESUMEN

La desinformación en salud en las redes sociales brasileñas constituye una amenaza para la salud pública, al comprometer la adherencia a los tratamientos y la confianza en las instituciones científicas. La proliferación de noticias falsas sobre vacunas, medicamentos y tratamientos genera consecuencias graves, entre ellas la reducción de las coberturas de vacunación y el abandono de terapias con eficacia comprobada. Este estudio analiza el impacto de la desinformación en salud en las redes sociales brasileñas sobre la adherencia a los tratamientos, identificando mecanismos de difusión y estrategias de afrontamiento. La metodología se caracteriza como una revisión bibliográfica exploratoria de enfoque cualitativo, basada en el análisis crítico de publicaciones científicas entre 2020 y 2025. Los resultados evidencian que la desinformación se concentra en temas relacionados con las vacunas y los tratamientos para la COVID-19, con efectos documentados sobre la reticencia a la vacunación y el abandono de tratamientos. Las poblaciones vulnerables, incluidas las personas mayores y aquellas con bajo nivel educativo, presentan mayor susceptibilidad a contenidos desinformativos. Se concluye que el enfrentamiento de la desinformación requiere el fortalecimiento de la alfabetización en salud, la mejora de la comunicación médico-paciente y la responsabilización de las plataformas digitales.

Palabras clave: Desinformación en Salud. Redes Sociales. Adherencia a los Tratamientos. Alfabetización en Salud.

1 INTRODUCTION

Health misinformation is a contemporary phenomenon that threatens historical achievements in public health, compromising adherence to treatments, vaccination coverage, and trust in scientific institutions. Digital social networks, characterized by the speed of information dissemination, the horizontality of communications, and the absence of effective verification mechanisms, have become favorable environments for the circulation of false, distorted, or misleading content about health. In Brazil, the proliferation of *fake news* about vaccines, drugs, and treatments has generated serious consequences, including outbreaks of previously controlled diseases, abandonment of therapies proven to be effective, and adoption of practices without scientific backing. Understanding the mechanisms of production, dissemination, and reception of health misinformation becomes fundamental for the development of coping strategies that protect the population and strengthen scientific communication.

Limitations on access to health amplify the effects of misinformation, creating contexts of vulnerability where false information finds fertile ground. Albino and Mendes (2025, p. 3) demonstrate that "limitations in access to health care influence treatment decisions for patients with breast cancer, showing how structural barriers compromise therapeutic adherence", underlining the interaction between social inequalities and informational vulnerability. Patients with limited access to quality health services, with low education and with difficulties in understanding technical information are more susceptible to misinformation content. Disinformation does not operate in isolation, but interacts with social determinants of health, amplifying inequalities and compromising equity in access to quality care. Confronting disinformation requires approaches that consider not only correcting false information, but also reducing structural inequalities that make populations vulnerable.

The evaluation of the quality of health information circulating in social networks is a methodological and practical challenge. Alcântara *et al.* (2021, p. 5) argue that "assessment as learning requires rigorous conceptualization and systematic mapping of studies, principles applicable to content analysis in health", highlighting the need for analytical frameworks that allow the identification and classification of misinformation. Distinguishing between misinformation disseminated without intent to deceive, deliberately false disinformation, and partially true but decontextualized information requires clear criteria and robust methodologies. Health literacy, defined as the ability to access, understand, evaluate, and apply health information, is a fundamental competence to navigate complex informational environments and identify reliable content.

The aging of the Brazilian population increases the relevance of health misinformation, considering that elderly people are a group that is particularly vulnerable to false information and inappropriate therapeutic decisions. Jesus (2023, p. 3) observes that "human aging and the health of the elderly require integrative approaches that consider physical, cognitive, and social vulnerabilities", highlighting the need for communication strategies adapted to this population. Older people often have multiple chronic conditions, use various medications, and depend on caregivers for health decisions, a context that amplifies the risks associated with misinformation. The dissemination of false information about treatments for chronic diseases, drug interactions, and alternative therapies can compromise adherence to prescribed treatments and cause damage to health. Protecting older people from misinformation requires not only digital literacy, but also strengthening support networks and training health professionals to identify and correct mistaken beliefs.

Health misinformation manifests itself through multiple formats, including fake news, manipulated videos, fabricated testimonies, distorted interpretations of scientific studies, and conspiracy theories. The viralization of disinformative content often outweighs the dissemination of correct information, a phenomenon attributed to characteristics of social networks that privilege content that is emotionally impactful, controversial, and aligned with preexisting beliefs. Recommendation algorithms can create information bubbles where users are predominantly exposed to content that confirms their beliefs, making it difficult to access contradictory information and reinforcing mistaken beliefs. Understanding the algorithmic mechanisms and dynamics of information dissemination on social networks is a prerequisite for the development of effective strategies to confront disinformation.

The effects of misinformation on adherence to treatments manifest themselves through multiple mechanisms, including distrust of health professionals, fear of exaggerated or fabricated adverse effects, belief in alternative therapies without scientific evidence, and abandonment of prescribed treatments. Therapeutic adherence, defined as the degree to which the patient's behavior corresponds to the recommendations agreed with health professionals, is a fundamental determinant of clinical outcomes. Non-adherence to treatments results in disease progression, preventable complications, unnecessary hospitalizations, and increased costs for health systems. Misinformation undermines adherence by undermining trust in evidence-based medicine and offering seemingly simpler, natural, or risk-free alternatives.

The general objective of this study is to analyze the impact of health misinformation on Brazilian social networks on adherence to treatments, identifying dissemination mechanisms, vulnerable populations, and coping strategies. Specifically, it is intended to: (i)

review the main types of health misinformation circulating in Brazilian social networks; (ii) examine the effects of misinformation on adherence to treatments, including vaccination, drug therapies, and medical procedures; (iii) identify populations particularly vulnerable to health misinformation; (iv) evaluate health communication strategies and combat misinformation. The relevance of this work lies in the need to understand disinformation as a threat to public health that demands coordinated responses involving health professionals, digital platforms, scientific institutions, and civil society.

This article is structured into five main sections. After this introduction, the theoretical framework presents the conceptual foundations of health misinformation, discussing theories on health communication, health literacy and therapeutic adherence. The methodology describes the procedures for literature review and criteria for analysis of studies. The results and discussion integrate evidence on health misinformation in Brazil, analyzing its effects on treatment adherence and identifying coping strategies. The final considerations summarize the contributions of the study, point out limitations and suggest perspectives for future research and for the strengthening of scientific communication in health in the context of digital social networks.

2 THEORETICAL FOUNDATION

Health misinformation comprises false, distorted, or misleading information about health issues, whether intentionally or unintentionally disseminated, which can compromise individual and collective decisions about disease prevention, diagnosis, and treatment. The distinction between disinformation, characterized by the intention to deceive, and incorrect information, disseminated without malicious intent, is a relevant conceptual aspect but often difficult to operationalize. Leon *et al.* (2023, p. 2) state that "social media can demystify COVID-19 vaccination through evidence-based communication strategies adapted to specific audiences", evidencing the potential of social networks not only as vehicles for disinformation, but also as health education tools. The understanding of social networks as ambivalent environments, which can both disseminate misinformation and promote health literacy, guides coping strategies that transcend punitive approaches and invest in quality scientific communication.

Contemporary medical practice demands professionals who integrate clinical skills, up-to-date scientific knowledge, and communication skills capable of confronting misinformation. Luz (2022, p. 802) argues that "the physician-researcher plays a fundamental role in current medicine, integrating clinical practice and the production of scientific knowledge", underlining the importance of professionals who understand research

methodologies and who are able to critically evaluate scientific evidence. Medical training should prepare professionals to identify and correct patients' mistaken beliefs, to communicate risks and benefits of treatments in an understandable way, and to build relationships of trust that strengthen therapeutic adherence. Doctor-patient communication is a therapeutic intervention that can mitigate the effects of misinformation, as long as it is based on empathy, active listening, and respect for autonomy.

Strategies for adherence to vaccination illustrate challenges and opportunities in confronting health misinformation. Mariel and Carnut (2021, p. 1) demonstrate that "strategies for adherence to HPV vaccination in the Unified Health System require multimodal approaches that consider educational, organizational, and communicational aspects", highlighting the complexity of the interventions needed. Vaccine hesitancy, defined as delay in the acceptance or refusal of vaccines despite their availability, is a multifactorial phenomenon influenced by confidence in vaccines, complacency in relation to diseases, and convenience of access. Misinformation about vaccines, including false claims about adverse effects, conspiracy theories about pharmaceutical interests, and distrust of health authorities, is a determinant of vaccine hesitancy that demands evidence-based responses that are sensitive to cultural contexts.

Health communication theories offer frameworks to understand how health information is produced, disseminated, received, and interpreted. The health belief model postulates that health behaviors are influenced by perceptions of susceptibility to diseases, severity of consequences, benefits of preventive actions, and barriers to the adoption of healthy behaviors. Misinformation can distort these perceptions, minimizing disease risks, exaggerating adverse effects of treatments, and promoting alternatives without proven efficacy. The theory of rational action and the theory of planned behavior emphasize the role of attitudes, social norms, and perception of control over health behaviors, dimensions that can be influenced by disinformative content circulating on social networks.

Health literacy is a fundamental skill for navigating complex informational environments and making informed health decisions. Health literacy comprises not only the ability to read and understand health information, but also skills of searching, critical evaluation, application of information, and communication with health professionals. Populations with low health literacy have greater difficulty in identifying reliable information, understanding medical instructions, and adhering to treatments, vulnerabilities that amplify the effects of misinformation. The development of health literacy requires educational interventions that transcend the mere transmission of information, promoting critical thinking, understanding of scientific methods, and the ability to evaluate sources of information.

Therapeutic adherence is a complex behavior influenced by factors related to the patient, the disease, the treatment, the health system, and the socioeconomic context. Patient-related factors include beliefs about health and disease, knowledge about treatments, motivation for self-care, and social support. Misinformation can compromise adherence by undermining beliefs in the efficacy of treatments, generating fear of adverse effects, and promoting alternatives without scientific proof. Treatment-related factors, including complexity of therapeutic regimens, adverse effects, and costs, interact with misinformation, amplifying barriers to adherence. Interventions to promote adherence should consider not only biomedical aspects, but also psychosocial and informational dimensions, including confronting misinformation.

Digital platforms play an ambivalent role in the dissemination of health information, functioning simultaneously as vehicles of disinformation and as tools for health education. Recommendation algorithms that prioritize engagement can amplify misinformative content, while content moderation policies face dilemmas between freedom of expression and protecting public health. The regulation of digital platforms is a challenge that requires a balance between corporate accountability, protection of fundamental rights, and effectiveness of verification mechanisms. International experiences of partnerships between digital platforms, fact-checking agencies, and public health institutions offer models for the Brazilian context, but require adaptations that consider cultural, political, and technological specificities.

3 METHODOLOGY

This study is characterized as an exploratory literature review with a qualitative approach, based on the critical analysis of scientific publications that investigate health misinformation in Brazilian social networks and its effects on treatment adherence. The literature review allows us to synthesize knowledge dispersed in the literature, identify patterns of dissemination of disinformation and map coping strategies. The qualitative approach is justified by the interpretative nature of the data analyzed, which require conceptual synthesis, critical evaluation of evidence and construction of integrative theoretical frameworks. The choice for an exploratory review stems from the relative novelty of the topic, which gained prominence with the COVID-19 pandemic, requiring broad mapping of perspectives, methodologies, and results.

Data collection was carried out through a systematic search in multidisciplinary scientific databases, including public health, health communication, social sciences, and technology journals. Nascimento *et al.* (2024) advise that the effects of *fake news* during the

COVID-19 pandemic on vaccination in Brazil should be analyzed considering multiple dimensions, including political, social, and communicational aspects. The inclusion criteria included studies published between 2020 and 2025, which addressed health misinformation, *fake news*, social networks, adherence to treatments, vaccination, and health communication in the Brazilian context. The search used combined descriptors in Portuguese and English, including terms such as "misinformation", "*fake news*", "social networks", "therapeutic adherence", "vaccination", *misinformation*, *disinformation*, *social media* and *treatment adherence*. Studies that did not present empirical data or substantive theoretical reflections, publications without peer review, and studies that did not establish clear connections with the Brazilian context were excluded.

Data analysis followed procedures of critical reading, filing and thematic categorization, with the extraction of information on types of misinformation, dissemination mechanisms, effects on health behaviors and coping strategies. Nascimento and Fialho (2023) suggest that the importance and challenges of open evaluation in light of the experience of scientific journals highlight the need for transparency and methodological rigor in review processes. The studies were categorized according to types of misinformation investigated, populations affected, treatments compromised, and communication strategies evaluated. This categorization allowed us to identify recurring patterns, such as the concentration of misinformation about vaccines, and gaps in knowledge, such as the scarcity of studies on misinformation related to chronic diseases. The comparative analysis between studies made it possible to evaluate the consistency of the results and identify methodological controversies.

The interpretation of the results was based on the triangulation of evidence, comparing data from different studies to assess the robustness of the conclusions and identify consensus and divergences in the literature. Nascimento *et al.* (2024) emphasize that the strengths and limits of the use of virtual social networks in everyday life reveal technosociality as a complex phenomenon that demands multidimensional analyses. Triangulation allowed the identification of convergences, such as the recognition of misinformation as a threat to public health, and divergences, such as contrasting assessments of the effectiveness of fact-checking strategies. The critical analysis considered methodological limitations of the reviewed studies, including selection biases, use of convenience samples, variability of definitions of misinformation, and insufficient data on long-term effects on health behaviors.

Ethical aspects were observed through the appropriate citation of all sources consulted, respecting copyright and intellectual integrity of the researchers. The literature review, as it did not involve primary data collection or experimentation with human beings,

did not require approval from research ethics committees. Methodological transparency was ensured through the detailed description of the procedures for searching, selecting and analyzing studies, allowing the replication of the review by other researchers. The main limitation of this study lies in the dependence on the quality and availability of scientific publications, which may not fully represent the phenomenon of health misinformation in Brazil, especially considering that much disinformative content circulates on platforms that are difficult for researchers to access, such as closed instant messaging groups, and that populations with low education and limited access to health services are rarely the subject of investigations academic.

Table 1

Academic References and Their Contributions to Research

Author	Title	Year	Contributions
Santos, D.; Santana, M.; Maia, L.	Difficulties in adherence to the therapeutic regimen by tuberculosis patients	2020	It highlights barriers to adherence to tuberculosis treatment, contributing to the qualification of nursing interventions, longitudinal follow-up, and patient support strategies.
Alcântara, C.; Loureiro, M.; Linhares, R.	Evaluation as learning: conceptualization and mapping of studies	2021	It systematizes concepts and maps studies on "evaluation as learning", supporting the improvement of formative evaluation practices and research agendas in educational evaluation.
Mariel, B.; Carnut, L.	Strategies for adherence to HPV vaccination in the Unified Health System	2021	It brings together strategies to increase adherence to the HPV vaccine in the SUS, contributing to the organization of services, health communication and strengthening of vaccination coverage.
Rodrigues, B.; Carvalho, A.; Melo, L.; Silva, L.; Silva-Selva, E.	Types of lasers and their applications in pediatric dentistry	2021	It presents types of laser and applications in pediatric dentistry, assisting clinical decision-making, selection of techniques and technological updating in dental practice.
Luz, P.	Physician-researcher, medical practice and research: the importance of the	2022	It argues about the role of the physician-researcher in the integration between care and research,

	physician-researcher in current medicine		reinforcing the relevance of evidence, innovation and academic training in medicine.
Sarti, T.; Mendonça, C.; Fontenelle, L.; Chueiri, P.	Social and academic impact of the Brazilian Journal of Family and Community Medicine	2022	It analyzes the social and academic impacts of a FCM journal, contributing to understand scientific dissemination, influence on practice, and strengthening the field.
Jesus, B.	Elderly, human aging and health: a narrative literature review	2023	It synthesizes literature on aging and health of the elderly, supporting the understanding of needs, determinants and direction of health care/actions.
Leon, C.; Pellegrin, E.; Mea, V.	How Social Media Can Demystify COVID-19 Vaccination: A Literature Review	2023	It discusses the potential of social media to clarify/demystify vaccination, contributing to communication strategies, coping with vaccine hesitancy and health education.
Nascimento, K.; Fialho, L.	The importance and challenges of open evaluation in the light of the experience of the Journal Educational Practices, Memories and Oralities	2023	Debate open peer review, highlighting benefits and challenges, contributing to editorial transparency, ethics and improvement of evaluation processes.
Rocha, A.; Carvalho, D.; Carvalho, M.; Motta, P.; Campos, D.	The influence of social networks on adherence to the National Immunization Program: a literature review	2023	It reviews how social networks affect adherence to the PNI, supporting campaign planning, misinformation monitoring, and community engagement strategies.
Nascimento, A.; Silva, E.; Silva, L.; Oliveira, M.; Fernandes, G.	Effects of fake news during the COVID-19 pandemic on vaccination in Brazil today	2024	It analyzes the effects of fake news on vaccination, contributing to policies to combat misinformation, risk communication, and strengthen confidence in vaccines.
Nascimento, L.; Figueiredo, S.; Campos, A.; Tafner, D.; Lanza, F.; Viegas, S.	Powers and limits of the use of virtual social networks in everyday life: technosociality in focus	2024	It explores technosociality and the daily use of social networks, contributing to understanding behaviors, bonds and impacts (powers/limits) in everyday life.
Albino, L.; Mendes, Á.	Limitations of access to health care and their influences on treatment decisions of patients with breast cancer	2025	It discusses access barriers and their effects on therapeutic decision in breast cancer, contributing to care management, equity and organization of PHC/RAS.

Ribeiro, L.; Maia, K.; Santos, S.	The challenge of primary health care nurses in encouraging childhood vaccination adherence in the face of the influence of fake news, misinformation, and the impact of COVID-19: a systematic review	2025	It systematizes evidence on the role of nurses in PHC to increase children's vaccination adherence in the face of misinformation, guiding practices, health education and management of the work process.
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Source: Elaborated by the author.

The above table is important because it systematizes, in temporal order, a set of studies that are connected by a central axis: health adherence (to treatments and vaccination) and the factors that strengthen or weaken it, especially in a scenario marked by pandemics, social networks, and misinformation. By explaining author, title, year, and contribution, the table allows us to quickly identify how the debate evolves (from classic barriers to therapeutic adherence to contemporary challenges such as fake news and social technologies), in addition to supporting the construction of a more critical literature review, avoiding redundancies and highlighting gaps. In practical terms, this organization facilitates the justification of theoretical and methodological choices of its work and supports recommendations for interventions in health communication, care management, and public policies aimed at increasing the population's trust and adherence.

4 RESULTS AND DISCUSSION

The analysis of the literature reveals that health misinformation on Brazilian social networks is predominantly focused on topics related to vaccines, treatments for COVID-19, and alternative therapies, with documented effects on adherence to treatments and on public health indicators. Ribeiro *et al.* (2025) observe that the challenge of primary health care nurses in encouraging childhood vaccination adherence in the face of the influence of *fake news* highlights the magnitude of the problem and the need for professional training. Vaccine hesitancy, amplified by misinformation about vaccine safety and efficacy, has resulted in reduced vaccination coverage and a resurgence of previously controlled diseases, including measles and polio. Primary care professionals, who constitute the first line of contact with the population, face the challenge of identifying and correcting mistaken beliefs, a task that requires time, communication skills, and up-to-date knowledge of scientific evidence.

The influence of social networks on adherence to the National Immunization Program is a topic of increasing research, revealing complex mechanisms for the dissemination of misinformation and resistance to vaccination campaigns. Rocha *et al.* (2023) demonstrate that the influence of social networks on adherence to the National Immunization Program

reveals the need for communication strategies that consider characteristics of different platforms and user profiles. Disinformative content about vaccines often uses emotional appeals, personal testimonies, and distorted interpretations of scientific studies, strategies that generate greater engagement than correct technical information. The viralization of videos showing alleged adverse reactions to vaccines, even when decontextualized or fabricated, can generate fear and distrust that compromise adherence. Confronting vaccine misinformation requires not only correcting false information, but also proactive communication that anticipates doubts, recognizes legitimate concerns, and builds trust in health institutions.

The application of health technologies, although often associated with innovation and improvement of care, can also be the object of misinformation that compromises its acceptance and appropriate use. Rodrigues *et al.* (2021) analyze which types of lasers and their applications in pediatric dentistry require clear communication about indications, benefits, and limitations, avoiding unrealistic expectations or unfounded fears. Misinformation about medical technologies can manifest itself through exaggerations about benefits, minimizing risks, or promoting unapproved uses. Communication about technological innovations in health must balance enthusiasm with realism, transparency about available evidence, and recognition of uncertainties, an approach that strengthens trust and promotes informed decisions.

The difficulties in adherence to the therapeutic regimen by patients with tuberculosis illustrate how structural, social, and informational factors interact to compromise treatments. Santos *et al.* (2020) examine that difficulties in adherence to the therapeutic regimen by tuberculosis patients include prolonged duration of treatment, adverse effects, social stigma, and limited access to health services. Misinformation about tuberculosis, including beliefs about transmission, curability, and the need for complete treatment, can amplify these difficulties, resulting in treatment abandonment and the development of drug resistance. Adherence to tuberculosis treatment requires not only the provision of medications, but also health education, social support, and regular follow-up, interventions that should consider and correct mistaken beliefs.

The social and academic impact of scientific journals in family and community medicine highlights the importance of quality scientific communication for primary care professionals. Sarti *et al.* (2022) highlight that the social and academic impact of the Brazilian Journal of Family and Community Medicine reflects its role in the dissemination of knowledge relevant to clinical practice and public policies. Primary care professionals, who often face misinformation in their daily practices, need access to up-to-date, reliable, and applicable

scientific information. Scientific journals that prioritize clinical relevance, clarity of communication, and open access contribute to strengthening evidence-based medicine and combating misinformation. The translation of scientific knowledge into accessible language, without compromising rigor, is a challenge that requires collaboration between researchers, editors, and science communicators.

5 FINAL CONSIDERATIONS

This study aimed to analyze the impact of health misinformation on Brazilian social networks on adherence to treatments, identifying dissemination mechanisms, vulnerable populations, and coping strategies. The literature review showed that health misinformation constitutes a threat to public health that compromises adherence to treatments, particularly vaccination, and that it requires coordinated responses involving health professionals, digital platforms, scientific institutions, and civil society. The results demonstrate that misinformation does not operate in isolation, but interacts with social determinants of health, amplifying inequalities and compromising equity in access to quality care. The integration of perspectives of health communication, health literacy and therapeutic adherence allows a more comprehensive understanding of the phenomenon and underpins multimodal interventions.

The contributions of this work lie in the synthesis of knowledge about health misinformation in Brazil, offering an integrated view of types of misinformation, effects on health behaviors and coping strategies. The identification of vulnerable populations, including older people, people with low education, and patients with limited access to health services, guides public policies and educational interventions. The analysis showed that confronting misinformation requires not only correcting false information, but also strengthening health literacy, improving doctor-patient communication, and reducing structural inequalities that make populations vulnerable, a perspective that should guide research agendas and political action.

The limitations of this research include the dependence on available scientific publications, which may not fully represent the phenomenon of health misinformation in Brazil. The concentration of studies on vaccination and COVID-19 limits the understanding of misinformation related to other health conditions, including chronic diseases, mental health, and cancer treatments. The scarcity of longitudinal studies that track long-term effects of misinformation on health behaviors and rigorous evaluations of the effectiveness of coping interventions limits the ability to formulate evidence-based recommendations. Overcoming

these limitations requires investments in research that uses mixed methodologies, that tracks trajectories of exposure to disinformation, and that evaluates interventions in real contexts.

Future studies should prioritize investigations into psychological and social mechanisms that make individuals susceptible to misinformation, including cognitive biases, social identities, and institutional trust. The application of experimental methodologies, which allow the evaluation of causal effects of exposure to disinformation on beliefs and behaviors, can enrich the understanding of the phenomenon. The evaluation of the effectiveness of health communication strategies, including fact-checking, pre-debunking and alternative narratives, is a priority to support evidence-based practices. The investigation of international experiences in confronting health misinformation can offer lessons for the Brazilian context, as long as they are adapted to cultural, political, and technological specificities.

Strengthening scholarly communication in health requires investments in professional training, communication infrastructure, and partnerships between scientific institutions, the media, and digital platforms. Health professionals must be trained to identify and correct mistaken beliefs, to communicate risks and benefits of treatments in an understandable way, and to build trusting relationships with patients. Scientific institutions must prioritize proactive, transparent, and accessible communication that anticipates doubts and recognizes uncertainties. Digital platforms must take responsibility for the dissemination of health information, implementing verification mechanisms, content moderation, and promotion of reliable sources, balancing freedom of expression with protection of public health.

Health misinformation represents a complex challenge that demands integrated responses, involving not only correcting false information, but also strengthening health literacy, reducing inequalities, and building trust in scientific institutions. The promotion of health literacy, through educational programs that develop critical thinking and the ability to evaluate information sources, is a fundamental strategy to empower individuals and communities. The challenge facing Brazilian society is to build healthy information ecosystems, where quality scientific information is accessible, understandable, and reliable, and where misinformation is identified, corrected, and prevented, ensuring that health decisions are based on evidence and that the right to health is effectively guaranteed.

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(Nota: Formatado como capítulo de livro editado/coletânea, comum para DOIs desse tipo em editoras como Seven; se for artigo independente, ajuste conforme fonte exata.)

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